SPAWAR

Systems Center
San Diego

TECHNICAL DOCUMENT 3031
April 1998

Accomplishment Report for Fiscal Year 1997

SSC San Diego Detachment, Philadelphia

Approved for public release;
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Space and Naval Warfare Systems Center
San Diego, CA 92152–5001

SPACE AND NAVAL WARFARE SYSTEMS CENTER
San Diego, California 92152–5001

H. A. Williams, CAPT, USN
Commanding Officer

R. C. Kolb
Executive Director

ADMINISTRATIVE INFORMATION

This work detailed in this report was performed for the Space and Naval Warfare Systems Command, the Naval Air Systems Command, and the Office of Naval Intelligence by the Space and Naval Warfare (SPAWAR) Systems Center, San Diego Detachment, Philadelphia.

Released under the authority of
F. R. Wahler
Director
of C^4I Systems, Philadelphia

SB

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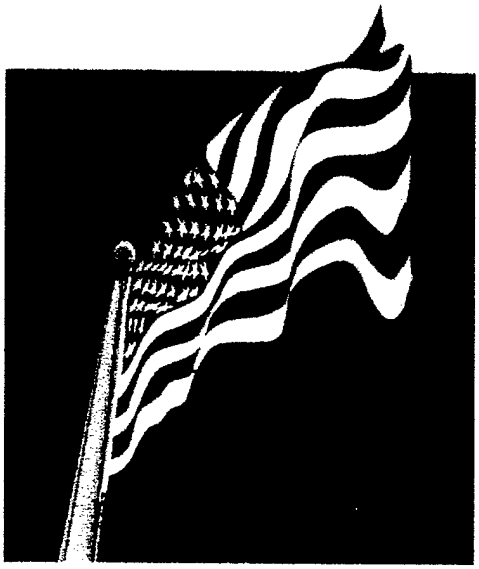


CUSTOMER SATISFACTION IS OUR ONLY PRODUCT . . .

INTRODUCTION

SPAWAR
Systems Center
San Diego
DETACHMENT PHILADELPHIA

The Space and Naval Warfare Systems Center (SPAWARSYSCEN) SAN DIEGO DETACHMENT PHILADELPHIA (formerly the Naval Command, Control and Ocean Surveillance Center, Research, Development, Test and Evaluation Division Detachment, Philadelphia) was established in October 1993.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA is responsible for a program of development, in-service engineering, procurement, installation support, configuration control and integrated logistics support for mission planning sytems, electronic photographic processing systems and imagery archiving systems afloat and ashore worldwide. During fiscal year 1997, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided technical support to:

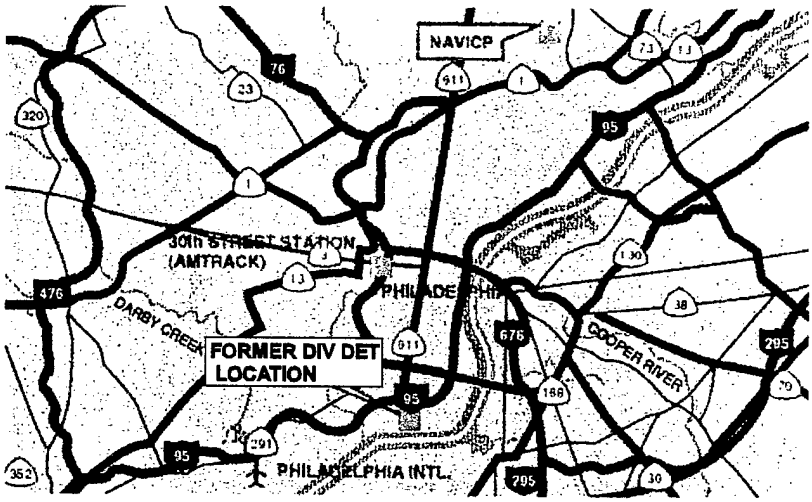
- Commander, Naval Air Systems Command
  - Program Executive Officer, Cruise Missiles Project and Unmanned Aerial Vehicles Joint Project Office
    - Command and Control Systems Program Office (PMA-281)
    - Surface Ship Cruise Missiles Program Office (PMA-282)
  - Program Executive Officer, Tactical Aircraft Programs Office
    - Tactical Aircraft Mission Planning System Program Office (PMA-233)
    - F-14 Program Office (PMA-241)
  - Naval Air Warfare Center (NAWC), Aircraft and Weapons Divisions
- Commander, Naval Sea Systems Command
  - Aircraft Carrier Program Office (PMS-312)
  - Amphibious Warfare Program Office (PMS-377)
- National Imagery and Mapping Agency (NIMA)
- Joint, service and allied commands and program offices

Headed by a civilan Director, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA is staffed by 40 employees from many disciplines and skills, including interdisciplinary engineers, computer specialists, electronics technicians, logisticians, and management support personnel. Customer satifaction based upon Total Quality Management (TQM), and the Quality Process is the Detachment's principal goal and criterion of achievement. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's efforts are supplemented by 129 contractor engineer and technical support personnel.

The Detachment's internal structure is shown in its Organization Chart, Figure 1. Principles of Operation, Figure 2, graphically illustrates SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's commitment to customer satisfaction.

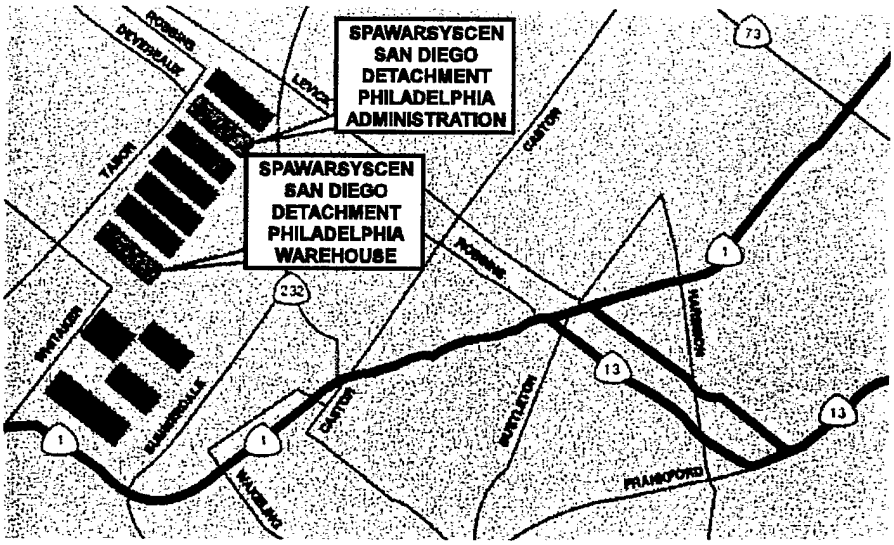
SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA LOCATION AND FACILITIES

Location: In March 1997, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA relocated from the Naval Business Complex, formerly Naval Base Philadelphia, to Buildings 2 and 7, Naval Inventory Control Point (NAVICP) compound, 700 Robbins Avenue, Philadelphia, Pennsylvania.



Facilities: In Building 2, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA occupies 19,400 square feet comprised of a fleet support laboratory with technical analysis and help desks, two systems support training areas, a functional mission planning systems Local Area Network (LAN) configuration, and two fully accredited security areas containing a Sensitive Compartmented Information Facility (SCIF) and a Special Access Program (SAP) room.

There are also administrative, engineering and technical support areas. Utilizing an additional 20,900 square feet, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA has located its warehouse operations and a 1600 square foot systems integration facility in Building 7.



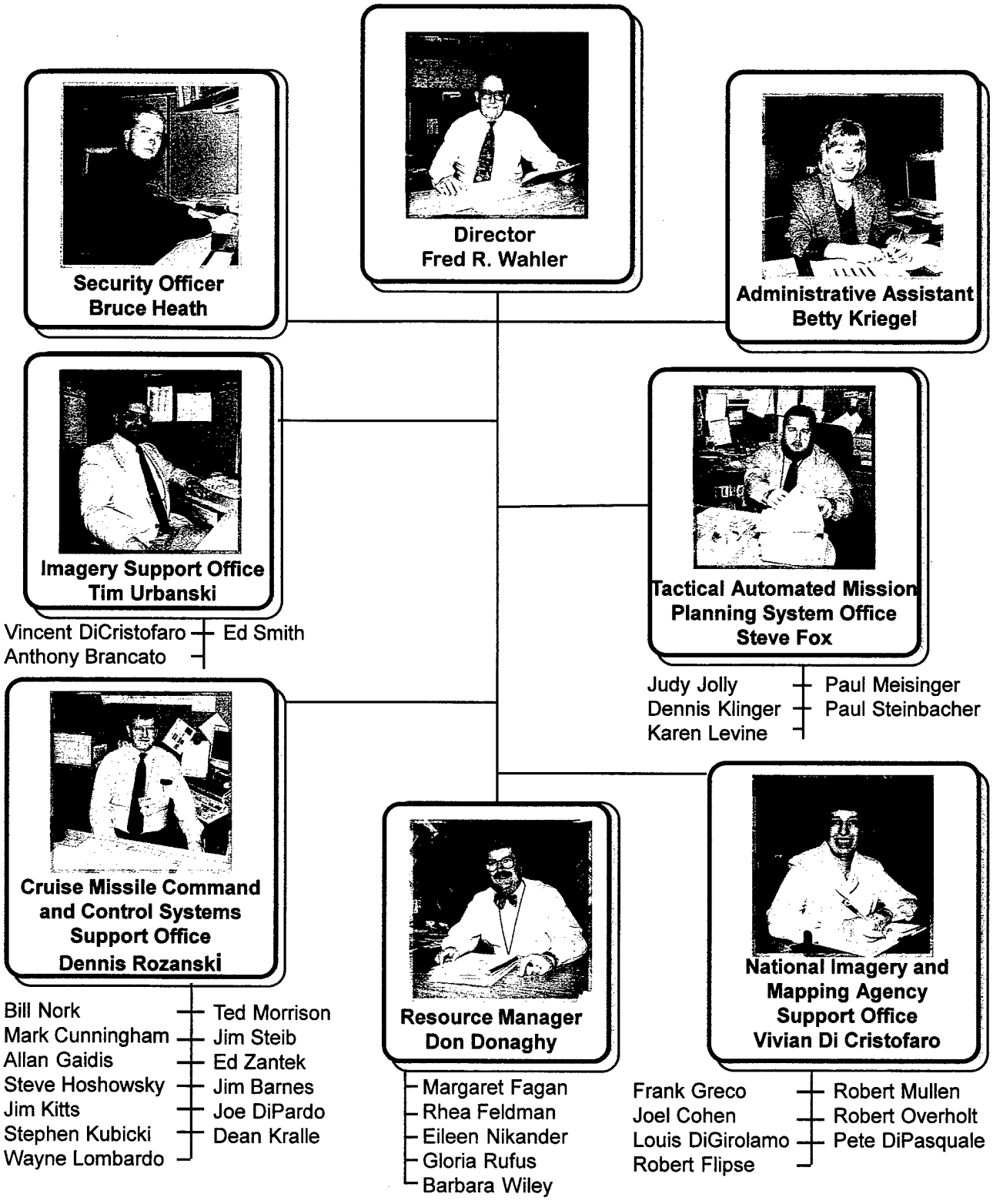


Figure 1. Organization Chart for SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA

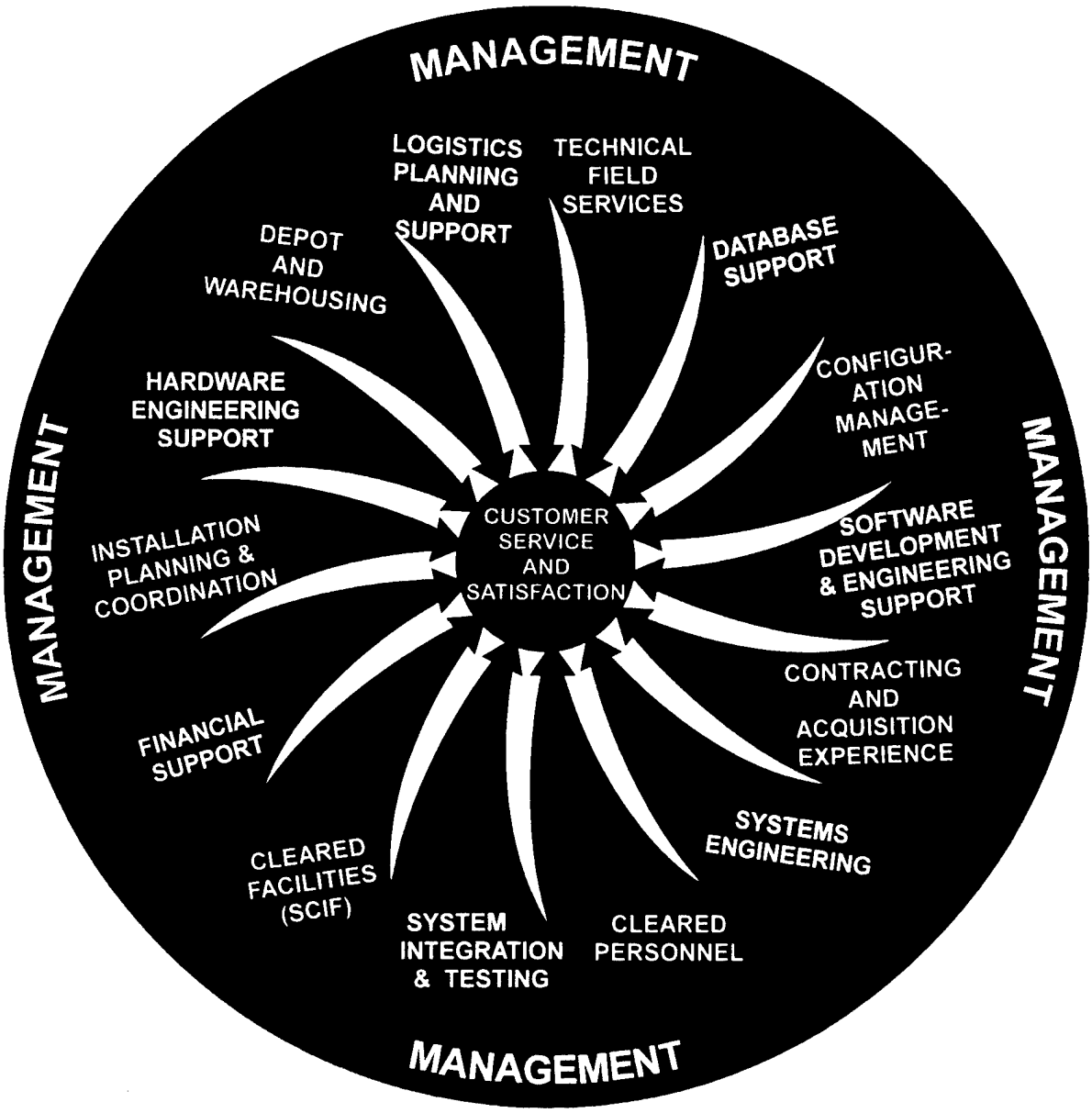


Figure 2. Principles of Operation

Awards and Recognition

FedEx Premium Service Awards

A new approach for logistics support, using a commercial transportation system for provisioning and inventory management, has resulted in several levels of recognition and awards for SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel.

Mr. Fred Wahler presents Dennis Rozanski with his Defense Acquisition Executive Certificate of Achievement, awarded by the Undersecretary of Defense Acquisition and Technology.

The FedEx Premium Service project was a Navy nominee for the David Packard Excellence Acquisition Award. Dennis was recognized for his significant contributions, demonstrating exemplary innovation and best acquisition practices.

Dennis also received a Letter of Appreciation from the Program Executive Officer, Cruise Missiles and Joint Unmanned Aerial Vehicles, RADM Barton D. Strong, USN, for his professionalism and dedication to the FedEx Premium Service project.

Awards and Recognition

Imagery Support Office

Tim Urbanski, Head, Imagery Support Office, received his Defense Acquisition Executive Certificate of Achievement in recognition of his exceptional contributions to improve life cycle costs and acquisition systems and programs. Tim was awarded this certificate as a member of a Reconnaissance Integrated Program Team.

Mr. Fred Wahler presents Tim Urbanski with his Defense Acquisition Executive Certificate of Achievement.

Awards and Recognition

Tactical Automated Mission Planning System (TAMPS)

Members of the Tactical Automated Mission Planning System team received a Letter of Appreciation from the Program Executive Officer for Tactical Programs for their significant contributions to making TAMPS 6.1 a success.

Mr. Fred Wahler presents Letter of Appreciation to Stephen Fox, Head, TAMPS Support Office.

Mr. Fred Wahler presents Letter of Appreciation to Karen Levine.

Mr. Fred Wahler presents Letter of Appreciation to Paul Meisinger.

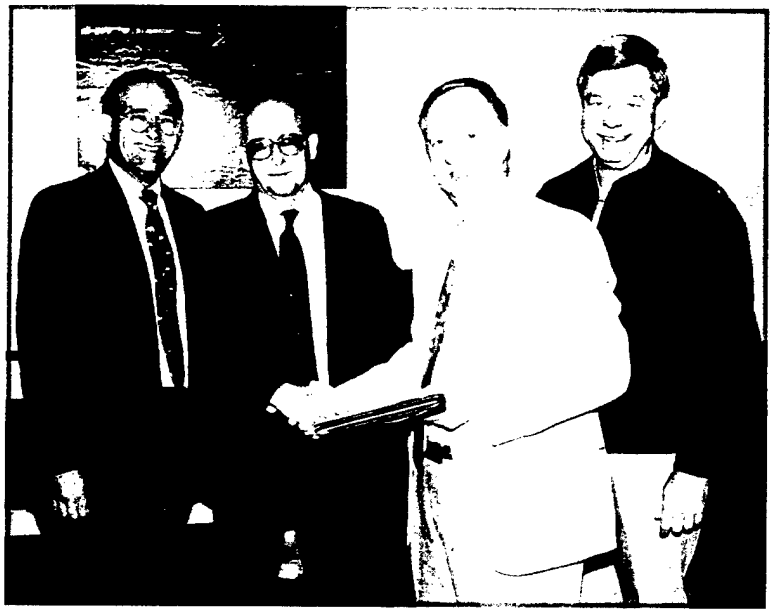
Mr. Fred Wahler presents Letter of Appreciation to Paul Steinbacher.

Mr. Fred Wahler presents Letter of Appreciation to Judy Jolly.

Awards and Recognition

Cruise Missile Support Office

Joe DiPardo, of the Cruise Missile Support Office, was awarded a Letter of Appreciation from the Program Executive Officer, RADM Barton D. Strong, USN, for his professionalism and dedication to the FedEx project. CAPT J.R. Bramer, USN, Program Manager, Cruise Missiles Command and Control Program, PMA 281, and Dr. R. Jaffee, Head, Command and Intelligence Systems Division, SSC SD, congratulate Joe on his accomplishment.



Mr. Fred Wahler presents a Letter of Appreciation to Joe DiPardo.

Awards and Recognition

Career Service Awards

Robert Overholt, a member of the National Imagery and Mapping Agency (NIMA) Support Office, earned a 30 year Career Service Award.

Mr. Fred Wahler presents a Career Service Award to Robert Overholt.

Tim Urbanski, Head, Imagery Support Office, earned a 30 year Career Service Award.

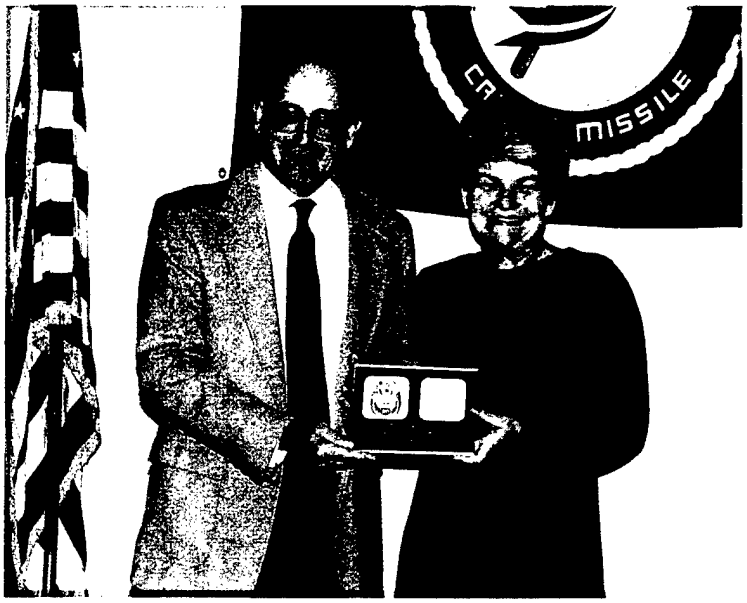
Mr. Fred Wahler presents a Career Service Award to Tim Urbanski.

Awards and Recognition

Career Service Awards

James Kitts earned a 25 year Career Service Award.

Mr. Fred Wahler presents a Career Service Award to James Kitts.



Margaret Fagan earned a 20 year Career Service Award.

Mr. Fred Wahler presents a Career Service Award to Margaret Fagan.

Awards and Recognition

Career Service Awards

Dean Kralle earned a 15 year Career Service Award.

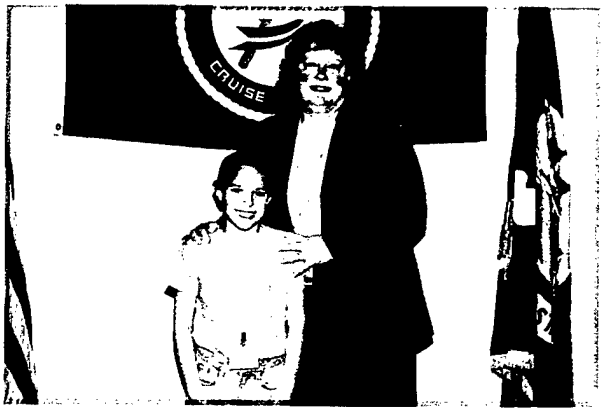
Mr. Fred Wahler presents a Career Service Award to Dean Kralle.

Bring Our Children to Work Day

On Thursday, April 24, 1997, the Naval Inventory Control Point, Philadelphia and Mechanicsburg, sponsored "Bring Your Children to Work Day." Boys and girls, ages 9 through 15, were invited to accompany their parents or guardians to work for the day to experience the realities of the world of work and to see how their parents or guardians contribute to the workforce and to the economy.

The day turned out to be an eventful, enjoyable, great Navy day!

Joel Cohen with his daughter Maria.



Barbara Wiley with her daughter Karen.

Ed Zantek with his daughter Rosemary.

Resource Management Support Office Staff

Margaret Fagan

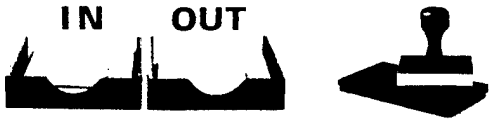
Rhea Feldman

Eileen Nikander

Gloria Rufus

Barbara Wiley

ADMINISTRATION AND ACQUISITION SUPPORT



Once again, the level of effort of SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's administrative and acquisition support functions exceeded all previous single year highs. The Total Obligating Authority (TOA) reached $57.1 million, an increase of 43% from FY96. Stub count was up by 11%, and prompt payment certifications rose by 38%. The use of IMPAC credit cards increased by 86%, reflecting the Detachment's commitment to their use. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA made similarly heavy use of various DOD and Navy-wide contracts and basic purchasing agreements (BPA), such as TAC-4, ULTRA II and SASS, to satisfy customer requirements. Shipment of material to the fleet was also increased by both direct transfers of material and use of the DLA FedEx Premium Logistics Support program. Pre-award efforts for a competitive multi-year engineering support contract were completed and award is anticipated in first quarter of FY98.

The physical transition from the Philadelphia Naval Business Center to the Naval Inventory Control Point compound in Northeast Philadelphia was conducted with minimal disruption in operating routine. Warehousing and receiving operations commenced in October 1996. Site modification and outfitting were accomplished throughout the fall and winter months with full-up operations in place by March 1997. Other day-to-day business operations were unaffected by the move.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's adminstrative workload is shown below.

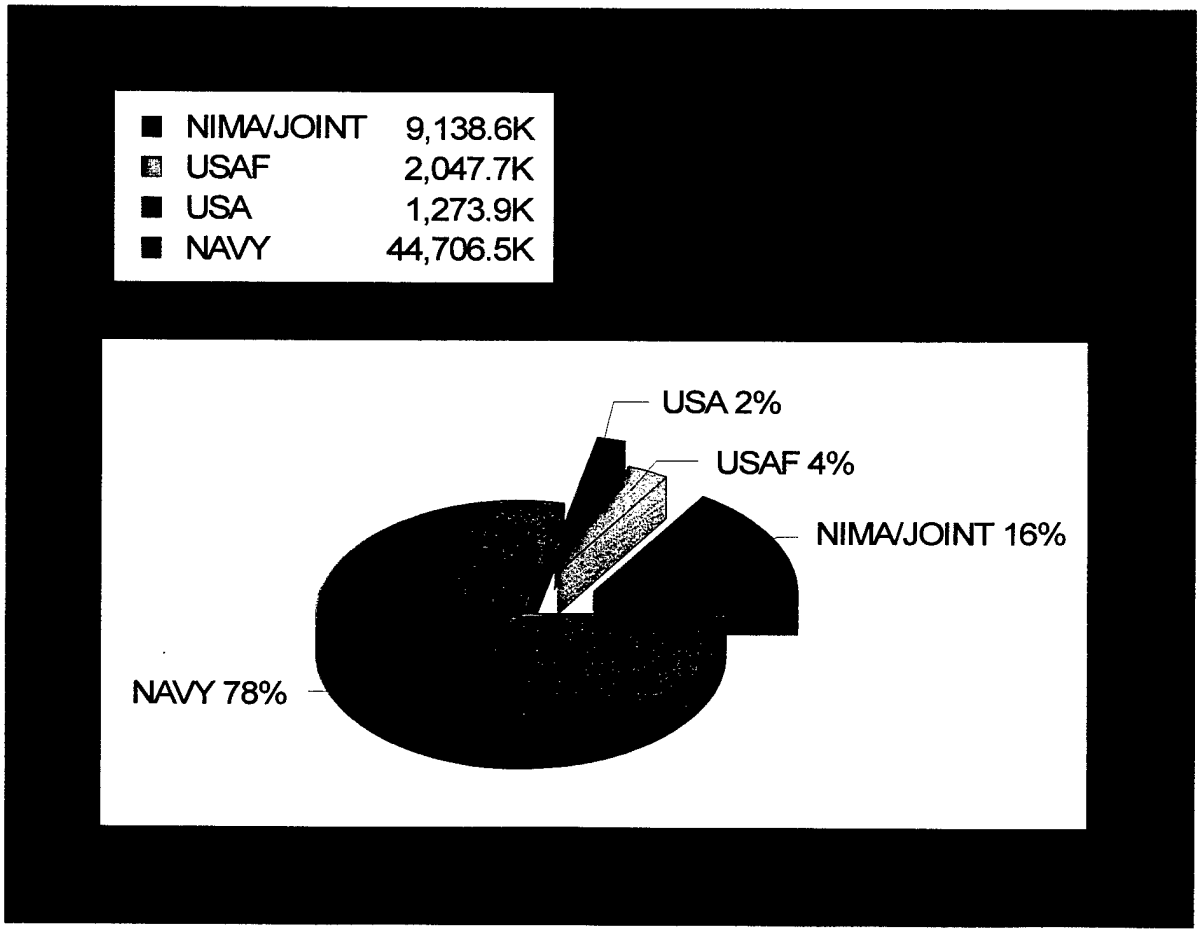
ADMINISTRATIVE WORKLOAD FY97	
Purchase requisitions	878
Requisition stubs	3149
BankCard transactions	592
MILSTRIPS	265
FedEX bills of lading (non-DLA)	1690
Prompt payment invoice certifications	789
Number of items on invoices certified	2704
Travel orders	842
Correspondence	124
Training documents	60
Messages	2442
Shipping documents (DD1149)	2236
Classified documents and other media	1373
+ Held	80
+ Destroyed	13
+ Transmitted	1280

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA

FY97 Funding

By Agency

TOA: $57,166,700

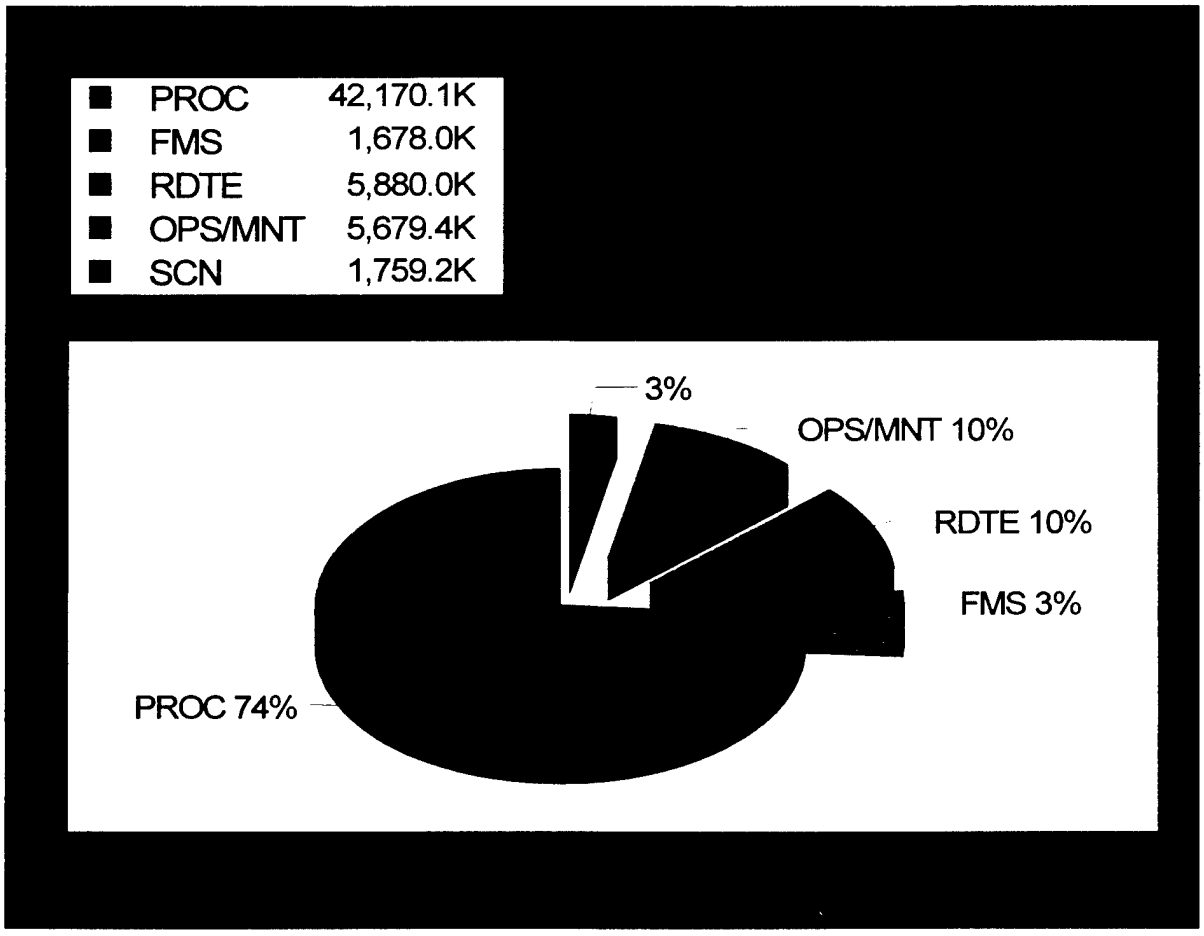


SPAWARSYSCEN SAN DIEGO
DETACHMENT PHILADELPHIA

FY97 Funding

By Appropriation

TOA: $57,166,700

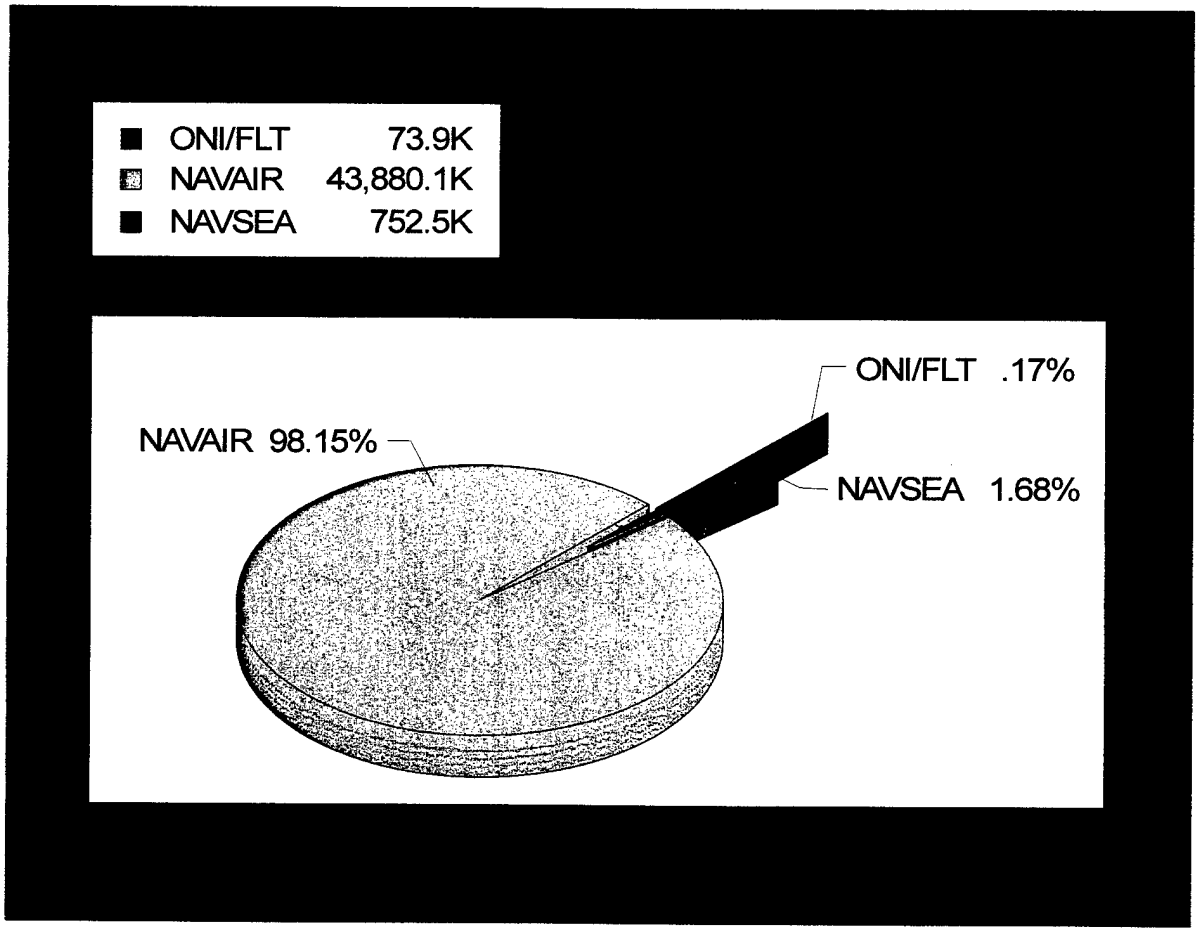


SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA

FY97 Funding

By Navy Claimant

TOA: $44,706,500



Contracting

Reflecting the large increase in Total Obligating Authority (TOA), SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA secured contracts for nearly $48 million to acquire project support materials and services. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA primarily utilized the contracting services of the Fleet and Industrial Supply Center Norfolk, Detachment Philadelphia (FISC DET PHILA). 74.5% of the actions through it were made competitively. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA worked closely with FISC to secure extended contracting authority for FISC purchase of materials under the Defense Intelligence Agency SASS family of contracts. Other significant purchases were made through the use of extant requirements contracts, such as TAC-4, CAD and BPAs for other tactical systems equipments.

MILSTRIP activity also expanded to an amount reaching $374,000. The Defense Industrial Support Center (DISC), with the technical support of SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA, extended federal stock number nomenclature to embrace additional components and equipment configurations that satisfied project requirements.

With fully 50% of personnel qualified holders of IMPAC credit cards, their usage to augment the contracting infrastructure contributed greatly to SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's ability to secure requisite material. IMPAC cards buys in FY97 totaled over $1.7 million.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's cadre of Contracting Officer's Representatives (CORs) continued its administrative assistance to major contracting efforts supporting Detachment programs. In FY97, in addition to the extant major engineering support contracts, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA CORs provided significant assistance in acquiring and administering a new technical services contract for engineering support and systems component repair services. At year's end a follow-on contract for engineering and technical services supporting all SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA projects was awaiting final negotiations and award.

Our CORs and the scope of the contracts they serve are:

- Rhea Feldman - Technical and Facility Support Services
- Dean Kralle - Engineering and Repair Services
- Lou DiGirolamo - Engineering and Technical Services

Technical Accomplishments

ENGINEERING & TECHNICAL SUPPORT TO PMA-281 FOR AFLOAT PLANNING SYSTEM (APS)

Role:

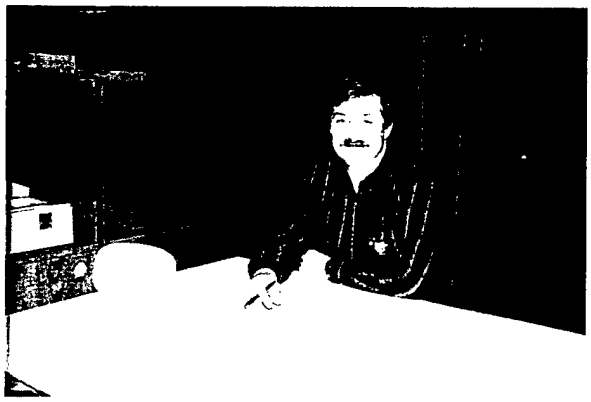
- **Technical Services**
- **Installation Planning**
- **Testing Support**
- **Integrated Logistics Support**

The Afloat Planning System is comprised of the computer system and applications software items which provide for the planning, distribution and employment support of the Tomahawk Land Attack Missile (TLAM). APS will provide each Battle Force (BF)/ Battle Group (BG) Commander with the same functional capability as the shore-based Cruise Missile Support Activity (CMSA) for planning conventional TLAM missions. The APS can facilitate a reduction in the dependence on non-organic assets or long-haul communications for management information system data during crisis surge and/or hostile activity.

The APS efforts for 1997 included coordinating and participating in the installation of hardware and software and testing of the APS on the following platforms and sites:

- *USS Abraham Lincoln* (CVN 72)
- *USS John C. Stennis* (CVN 74)
- *USS Dwight D. Eisenhower* (CVN 69)

Bill Nork



Steve Hoshowsky

- NSAWC Fallon
- CENTCOM (5th Fleet)

All the TAC-3 and TAC-4 hardware installed in the above platforms were architected, procured, assembled, and integration tested by SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA relocated two tabletop TAC-3 workstations and two ruggedized shipboard rack TAC-3 workstations at the Naval Marine Intelligence Training Center (NMITC), Dam Neck, VA, for use in the Tomahawk Planning System - Afloat (TPSA) Mission Planners Course in the new building addition.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA coordinated the development of the Ships Installation Drawing (SID) packages by the Expanded Planning Yards including conducting ship checks for the installation of APS on the following ships: *USS Abraham Lincoln* (CVN 72), *USS John C. Stennis* (CVN 74), *USS Dwight D. Eisenhower* (CVN 69), and *USS Enterprise* (CVN 65).

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA participated in the following APS development efforts:

- Digital Imagery Workstation Suite Afloat Configuration Consolidation
- Tomahawk Planning System Afloat (TPSA) Rehost to TAC-4 hardware
- Mission Distribution System Rehost to TAC-4 hardware
- VEXCEL 4000 Scanner

Point of Contact: Mr. Allan Gaidis, Code D4203AG, Tel: (215) 214-8033, DSN: 442-8033, FAX (215) 214-8109, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Jim Steib

ENGINEERING & TECHNICAL SUPPORT TO PMA-281 FOR JOINT SERVICE IMAGERY PROCESSING SYSTEM - NAVY (JSIPS-N)

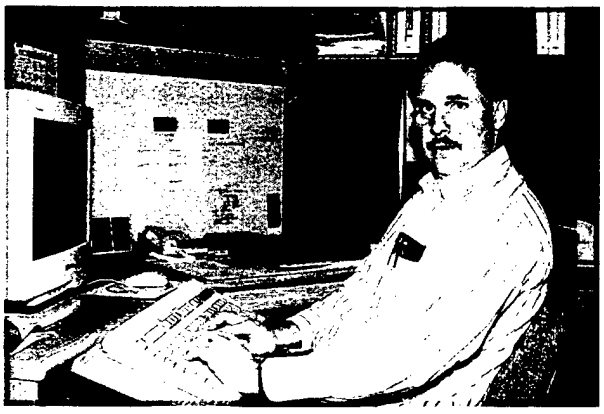
Role:

- **Technical Services**
- **Installation Planning**
- **Testing Support**
- **Integrated Logistics Support**

The Joint Service Imagery Processing System - Navy (JSIPS-N) is a shipboard deployable, tactical digital imagery system with the capability to receive, process, store, exploit, and disseminate imagery from a variety of sources. JSIPS-N will provide the Battle Group/ Battle Force (BG/BF) Commander with enhanced intelligence support via digital processing technology and linkage of imagery with imagery support data. The JSIPS-N design is predicated upon functional allocations to, and interfaces among, existing Navy systems that are presently being designed to perform functions other than JSIPS-N. In so doing, the Navy's approach to JSIPS-N maximizes the existing (or planned) organic shipboard information management systems by adding new functions to those systems.

The JSIPS-N effort for FY97 included coordinating and participating in the installation of hardware and software and testing of the JSIPS-N on board the following platforms:

- NSAWC Fallon
- *USS John C. Stennis* (CVN 74)
- *USS Abraham Lincoln* (CVN 72)
- *USS Dwight D. Eisenhower* (CVN 69)
- *USS Tarawa* (LHA 1)
- FITCPAC
- RDS No 1 (Imagery)
- RDS No 2 (Imagery)

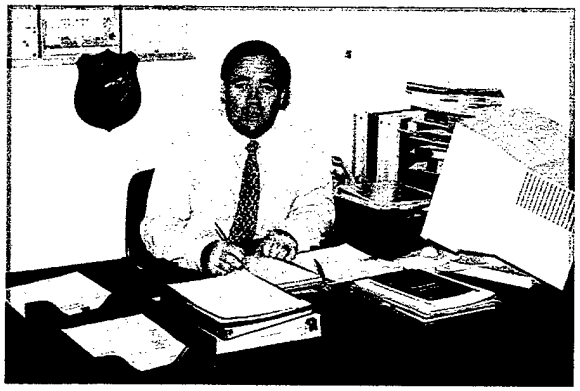


Mark Cunningham

In addition, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA participated in the following JSIPS-N development efforts:

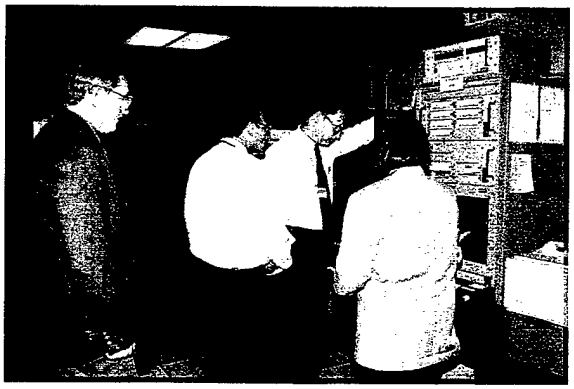
- National Input Segment Dissemination Element NIS (DE)
- Tactical Input Segment (TIS)
- PTW to JMCIS Interface
- Image Product Library (IPL) Afloat
- Strike Planning Archive/Precision Targeting Workstation
- Color Printer Studies

Point of Contact: Mr. Mark Cunningham, Code D4203MC, Tel: (215) 214-8035, DSN: 442-8035, FAX (215) 214-8109, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.



James Kitts

Ed Zantek



Mr. Rod Smith and Dr. R. Jaffee view a demonstration of Precision Targeting Workstation (PTW) as Dennis Rozanski observes.

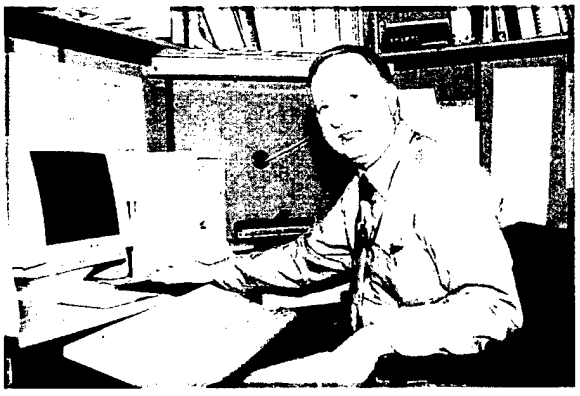
LOGISTICS PLANNING SUPPORT TO PMA-281

Logistics planning for FY97 focused on the upgrading of the Tomahawk Mission Planning Center (TMPC), Afloat Planning System (APS), to Version 3.0. The National Input Segment (NIS) in the Joint Imagery Processing System - Navy (JSIPS-N) was upgraded using the TAC-4 Hewlett Packard HP 9000 J210 Workstation. This also included the procurement, integration and testing of TAC-4 systems for the United Kingdom. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA also participated in the development effort to rehost the Precision Targeting Workstation on the TAC-4 computer.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA engineering and logistics personnel provided support in the installation of APS and JSIPS-N hardware onboard the *USS Nimitz* (CVN 68), *USS Eisenhower* (CVN 69), *USS Lincoln* (CVN 72), *USS Stennis* (CVN 74), *USS Tarawa* (LHA 1).

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel continued to utilize the Federal Express depot based in Memphis, Tennessee as the inventory control point for Cruise Missile spares. The depth of spare parts housed at this facility was increased by approximately 4500 items. The range of new items added increased by 320 items during FY97. Total savings in the first year amounted to approximately 27 million dollars. This service known as DLA Premium Service maintains government owned assets at a contractor operated facility at the Defense Depot, Memphis, Tennessee. This breakthrough approach to supply support has achieved DOD honors, and has been recognized by the Navy as the 1990s and beyond method of providing life cycle supply support to the fleet. Now in its second year of operation, this system has reduced the Mean Logistics Delay Time by approximately 80% for afloat (carrier), from an average of 32 to 6.8 days, and almost 90% for ashore systems from an average of 16 days to 1.5 days. During FY 97, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel working with PMA-281 systems support contractors, implemented a PMA-281 World Wide Web page to enable users to order replacement parts on-line. This home page also contains on-line technical documentation, computer based training and system operator manuals. This effort will continue in FY98.

Jim Barnes



Joe DiPardo

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel provided users with supply support, technical documentation and training for the new TAC-4 based systems in accordance with COMNAVAIRLANT directives for AIT installations. Logistics personnel began to create Provisioning Technical Documentation (PTD). We also provided hardware and system operator training on-site and at our laboratory facility.

Logistic personnel also initiated the creation of PTD which will be sent to the NAVICP at Mechanicsburg, PA for development of APLs to allow for eventual supply system support of the TAC-4 based systems.

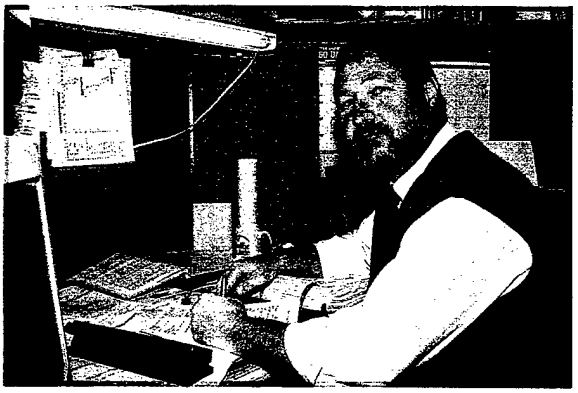
Logistics personnel also began to enter this data on the Local Area Network (LAN) to provide Technical Support personnel with accurate configuration information.

Logistics personnel greatly increased their use of the government VISA credit card to purchase installation and spare parts. At the end of FY97, approximately 95% of all purchases under $2,500.00 were made with a credit card. This has reduced procurement administrative lead-time from an average of 75 days to 15 days, or 80%.

To effectively manage the hardware and software systems installed at worldwide locations, logistics personnel evaluated several configuration management data base software products. Selection and procurement were made during FY97. Training and use commenced in October 1997. This software will meet the unique needs of PMA-281 to manage the FedEx program, afloat and ashore operating systems, and training installation systems.

Extensive planning was accomplished for the installation of a TMPC at the UK in FY98. Many IPRs, technical exchange meetings with developers and the UK were held to reconcile configuration, installation and follow-on support. These findings were briefed to the UK management at two PMRs and working groups.

Ted Morrison



Dean Kralle

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel worked with Lockheed Martin in Valley Forge to convert and extend their Technical Orders from an Air Force specific document to one that could be applied for Navy use. This is an online technical document.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA worked on the PMA-281 web page link for logistics, and worked to establish an engineering drawing database that can be used to view schematics through a plug-in on a browser. This involved site surveys to CMSALANT, CMSAPAC, and the Washington Planning Center.

PMA-281 has worked with the factory engineers on the NIS (DE) project under JSIPS-N to arrange for a factory training schedule. This became necessary to ensure that deploying units were properly trained in the use and maintenance of the components of the National Input Segment Dissemination Element, (NIS (DE)).

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA worked to accomplish a transition of responsibility to service the Receive Element (RE) NIS that had previously been done by TRW contractors. The objective of this transition was to bring down the total Operations and Maintenance (O&M) funding line for our sponsor. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA worked with the Air Force and their contractor to accomplish an orderly and amicable transfer of function. From the TRW operated warehouse, 3,000 pieces of supporting spare parts and equipment were moved to the central DLA premium services - FedEx warehouse in Memphis. Subsequently, three joint service sites were visited to train personnel in the use of the FedEx spare parts ordering process.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel worked with peers throughout the development community to review and comment on their work. Computer Based Training (CBT) and online documentation projects, as well as conventional hard copy documents, have been evaluated and verified by our staff of technical writers and instructional designers.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel continued to explore new ways of delivering online documentation and training and attended logistics conferences with the leading experts in the industry. The field is changing to accommodate all the rapid technological developments that impact directly on the areas of the written word; these developments are applied both in training manuals and in all types of documentation.

Point of Contact: Mr. Jim Barnes, Code D4205JB, Tel: (215) 214-8021, DSN: 442-8021, FAX (215) 214-8109, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

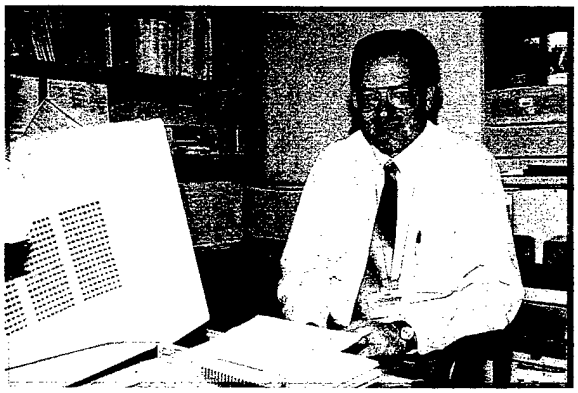
MISSION DISTRIBUTION SYSTEM (MDS)

Role:

- **Hardware Engineering and Integration**
- **Installation Planning, Distribution and On-Site Implementation Including Training for Both Hardware and Software**
- **System Support from Version 2.2 Through the Present 3.0.8.2 and Beyond**
- **Integrated Logistics Support**
- **24 Hour by 7 Day Trouble Desk Support**
- **On-Line Performance Support Tools (OLPST) Development and Support**

The Mission Distribution System (MDS) is designed to aid the Battle Force/Battle Group (BF/BG) Strike Warfare decision makers by satisfying the tactical requirement of displaying the TOMAHAWK Land Attack Missile (TLAM) inventory of approved PrePlanned Missions (PPMs) and fleet missile inventory levels. MDS can receive and automatically update its Master Mission Library (MML) database while providing search, sort and display capabilities of the TLAM Mission Folder Data for task force strike analysis and retransmission of a Mission Data Update(s) (MDU) to subordinate echelons. In its enhanced role MDS can allow planners to redefine mission data packages before transmission to other MDS sites or to sites with Advanced TOMAHAWK Weapons Control System (ATWCS) launch capabilities.

An integral part of the MDS operational concept is the On-Line Performance Support Tools (OLPST) package that provides computer based training, On-Line Job Planner, On-Line Help and On-Line support documentation including the System Operators Manual (SOM) and TOMAHAWK Engagement Planning Package (ETEPP) Volume I.



Steve Kubicki

In FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA representatives supported MDS versions 3.0.8.2. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA responsibilities included support of developmental testing, site surveys, hardware and software installations, and development of both informal site and formal training packages. On-site informal training was provided to most MDS sites (ashore and afloat) during the past year while formal classroom courses were taught at the Naval Marine Corps Intelligence Training Center (NMITC), Dam Neck, VA; Tactical Training Group, Atlantic (TACTRAGRU LANT), Dam Neck, VA; and Tactical Training Group Pacific (TACTRAGRU PAC), San Diego, CA.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel integrated, shipped, and installed MDS configured TAC-3s and TAC-4s to various sites in support of communications net testing, MDS version 3.X and 4.X system development, and scheduled fleet installations. In the course of installing new MDS sites and in support of systems already installed, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel integrated, modified, installed and/or made operationally compatible various peripheral hardware(s) including: Generic Front-End Communications Processors (GFCP), upgrade scanners, LaserJet III and IV printers of various configurations, Secure Data Transfer (SDX) systems, Secure Telephone Units (STU-III) and various communications nets.

MDS Software installation(s) and site activation(s) included on-site support with minimal operational training for the release of MDS version 3.0.8.2. Software distribution included the reproduction and packaging of all software media, the generation of installation instructions and supporting documentation, packaging, and shipping. Because a majority of these sites were actively engaged in real-time, real-world operations, the seamless MDS hardware upgrade and software integration was quite an achievement in itself.

Mr. Rod Smith and Dr. R. Jaffee view a demonstration of the Mission Distribution system as Dennis Rozanski observes.

Development of the MDS version of 3.0.8.2 upgrade included a hardware upgrade (replacement of the existing disk drives with larger removable types, replacement of the single speed CD-ROM with a six speed unit, and supporting mechanical upgrades) and software (delivered on a single CD-ROM with menu driven configuration selection). The hardware upgrade relieved an existing memory bound condition and extends the serviceability of the existing hardware indefinitely. The software upgrade corrected many known anomalies and permits continued data base compatibility.

To date there are approximately 56 supported MDS site installations. On-site and telephonic support services were provided to virtually all MDS sites. Response time to emergency on-site support requests is nominally 24 to 48 hours regardless of where in the world the request originates, with representatives prepared to remain on-site until resolution is achieved. During FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA representatives visited most out of Continental United States (CONUS) sites at least once and some multiple times. Most in-CONUS sites also received site visits during FY97. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA supplements on-site support with 24 hour telephone support that has proved successful in most instances.

Point of Contact: Mr. Stephen Kubicki Jr. (MDS Team Leader) Code D4203SK, Tel: (215) 214-8000/8037 or DSN 442-8000/8037, and MDS TYPE DESK, Tel: (800) 759-1263, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

RAPID DEPLOYMENT SUITE (RDS)

Role:

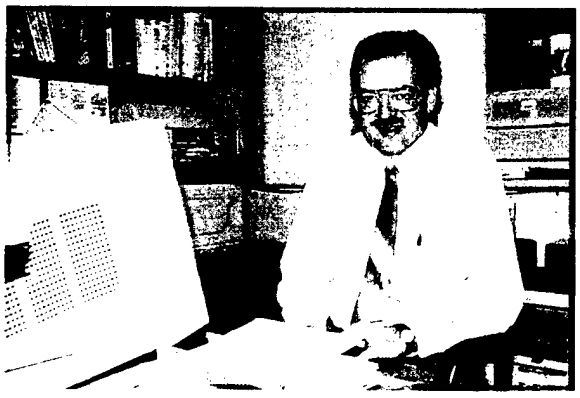
- **Coordination of RDS Plant Engineering and Integration**
- **Installation Planning, Site Implementation, Suite Light-Off and Checkout**

  (APS and JSIPS-N systems support is covered elsewhere within the FY97 Accomplishment Report.)
- **Physical and Automated Information System (AIS) Accreditation Coordination and Security Guidance and Assistance**
- **On-Site Support and Upgrade Implementation**
- **Configuration and Uniformity Management**
- **Integrated Logistics Support**

The Rapid Deployment Suite (RDS) is comprised of Afloat Planning System (APS) and Joint Service Imagery Processing System-Navy (JSIPS-N) equipment housed in three or four standard mobile tactical shelters. The RDS is deployed as one complete self-contained unit bringing the TOMAHAWK Land Attack Missile (TLAM) Tactical Mission Planning System (TMPS) capability to any Battle Force/Battle Group (BF/BG) Commander and their theater of operation. All external communications connectivity and data transmission security safeguards are provided by host activity(ies) or site(s).

The RDS was developed to accommodate deployment in two operating arenas, both as a fully accredited standalone Sensitive Compartmented Information Facility (SCIF) and as a remotely located Tactical SCIF. Construction of the RDS incorporates physical as well as some Transient Electromagnetic Pulse Emanation Standard (TEMPEST) and Electromagnetic Interference (EMI) hardening to meet applicable requirements of the Director of Central Intelligence Directive (DCID) 1/21.

Raw data is introduced to the RDS primarily via magnetic media, photography and/or hard copy but may include an external communications link for National Imagery input. When the RDS is deployed to the Naval Strike and Air Warfare Center (NSAWC), Fallon, NV, an APS Operations Support Detachment (AOSD) or a Joint Mobile Operational Command Center (JMOCC), fiber optic interface(s) may be installed connecting the RDS to the host facility. No communication



Steve Kubicki

transmitters or receivers other than Secure Telephone Unit - Third generation (STU-III) and cryptographic devices incorporated in the National Input Segment (NIS) (part of JSIPS-N) are included in the present design.

In FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA representatives supported RDS #1 installed at the AOSD Pacific, Commander-in-Chief, U.S. Pacific Fleet (CINCPACFLT), Pearl Harbor, HI by providing the improvement and repair of several environmental features. Most of these efforts were designed to make the prototype configuration of RDS #1 align with the production design of RDS #2 and #3. These actions included extensive revamping of each shelter's air handling system and the replacement of all the Environmental Control Units (ECUs), upgrading the Intrusion Detection System (IDS) to match the new physical arrangement of the shelters, modifying the primary power circuits to include more safety features, and various design alterations to improve habitability and integrity to the outside environment. Additionally, pad modifications were made to allow the rearrangement of the existing shelters to accommodate the installation of the (fourth) Imagery Shelter and correct drainage problems.

Several site visits were made to AOSD Atlantic (RDS #2) at Commander-in-Chief, U.S. Atlantic Fleet (CINCLANTFLT), Norfolk, VA. Issues addressed and work performed ranged from site hotel service requirements, shelter door realignment and repairs, IDS modifications and repairs, and guidance on several security issues.

Site visits were made to the Naval Strike and Air Warfare Center (NSAWC), Fallon, NV (RDS #3) for initial installation support and repair of failed components. Issues addressed and work performed ranged from ECU, IDS and shelter door repairs. JSIPS-N communications issues were addresses on several visits and on-site support was provided for the temporary NIS installation supporting exercise Silent Fury.

Several site visits were also conducted to provide assistance and guidance in direct support of a new RDS installation planned for Commander, U.S. Naval Forces Central Command, Forward (COMUSNAVCENT FWD), Manama, Bahrain. These visits included conducting an extensive site survey, participating in an American Service Unit (ASU), Resident Officer In Charge of Construction (ROICC) building pre-design conference, and providing a JSIPS-N communications and security requirements briefing. This installation is planned for 1998 with all system components to be installed in a single, newly constructed building vice separate shelters.

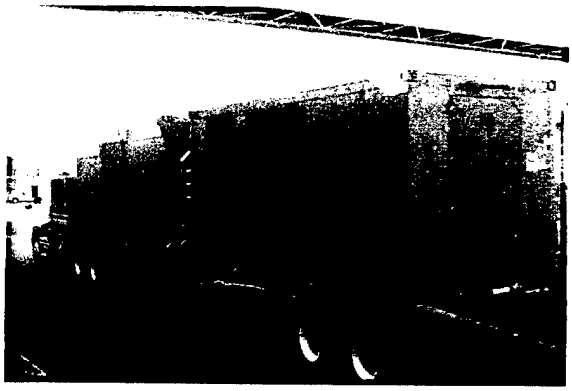
Part of SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA's RDS tasking is the coordination of multiple site visits to provide a direct conveyance between the program managers and RDS users of changing operational requirements, practices, thoughts and ideas. The intent of this requirement is for SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA to represent the Program Executive Office Cruise Missiles Project RDS Program Manager while visiting each RDS site several times a year. The representative requires technical expertise and knowledge making him capable of addressing all issues encountered. He is usually accompanied by and leads a small support

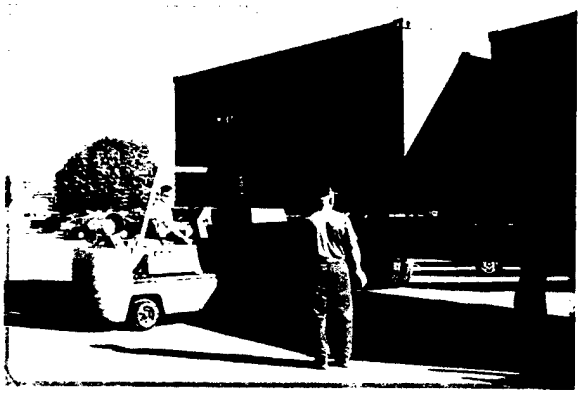
team comprised of personnel from various activities. In FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA coordinated two of these liaisons to each of the RDS installed sites. All exchanges were well received by the activities visited and proved to be informative to all participants and the program office. As an out crop of these visits, the need for improved documentation was revealed. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA has initiated the complete rewriting of all supporting documents including improvement to all drawing packages.

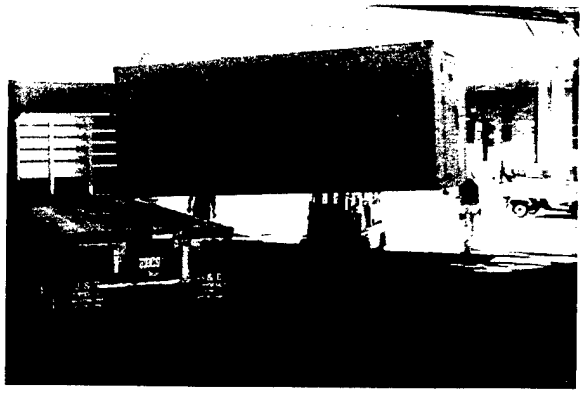
Future activities include the continuation of site liaison, installation of RDS #4 at COMUSNAVCENT FWD, construction of two new unpopulated RDS shelters, in addition to the upgrade of imagery functionality to RDS #1, #2 and #3. RDS #1and #2 will each receive an installation of the Theater Mission Planning Center (TMPC) Tape Copy System. The incorporation of additional habitability modifications and improved support documentation will remain a high priority.

Point of Contact: Mr. Stephen Kubicki Jr. (RDS Team Leader) Code D4203SK, Tel: (215) 214-8000/8037 or DSN 442-8000/8037, and APS TYPE DESK, Tel: (800) 759-1263, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Shelters Arriving at Detachment







TACTICAL AUTOMATED MISSION PLANNING SYSTEM (TAMPS)

Role:

- Systems Engineering
- Fleet Introduction and Installation
- Installation Planning
- Technical Support Help Desk
- Logistics Management
- Procurement Support

TAMPS is an interactive graphic system supporting aircrew mission planning for U.S. Navy and Marine Corps airborne weapon systems. TAMPS was first deployed in 1987 at the direction of the Secretary of the Navy. In 1991, TAMPS was established as a program in its own right and became PMA-233. The system is currently installed aboard aircraft carriers, at shore bases, intelligence centers, weapons schools and aviation support facilities throughout the world.

In FY97, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA continued to support TAMPS providing engineering, installation, technical assistance, on-the-job training (OJT), on-call fleet support, logistics management, and procurement support for all hardware and software versions of TAMPS.

During FY97, the TAMPS team at SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA completed 6.0.3A installations of the ACE Portable based TAMPS systems and the upgrade of the DTC-2 based systems. Retrofits to the V3 version of the ACE Portable were also accomplished. The TAMPS Version 6.1 software received

Steve Fox

Karen Levine

Commander, Operational Test and Evaluation Force (COMOPTEVFOR) approval in September 1997 and early deployments were accomplished aboard the *USS Washington* (CVN 73) and the *USS Vinson* (CVN 70) to support their at-sea schedules.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA procured COTS software licenses, printers and transit cases for the V4 Ace Portable systems and the ULTRA II systems. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA performed system integration and "burn-in" following receipt of the various components from the manufacturers.

All maintenance and user documentation was updated by SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA to provide information on the use and support of the TAMPS Version 6.1 software, as well as the new HMI interface. New training materials and courses were developed by SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA and presented to instructors at Navy training facilities. Instructor's training was also provided for the Navy training facilities. In addition, new maintenance documentation was developed to support the Ultra II hardware and TAMPS 6.1.1. software due for release in January 1998.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA representatives continued to provide telephone support and visits to a multitude of sites worldwide, both ashore and afloat, to provide technical and repair assistance, training, software and hardware installation, and crossdeck of systems between ships. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA also continued to provide the full range of logistics management functions including configuration management and failure reports, maintenance concept development for new equipment, spares selection and procurement, inventory control management and depot repair functions, as well as managing the COTS software licenses and maintenance.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA conducted trade studies to support selection of a new color printer, additional hardware upgrades to the DTC-2 systems, improvements to the Ultra II systems and updated transit cases for all new hardware. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA completed

Tom Olds and Christine Hartman, Litton PRC, demonstrate TAMPS to Mr. Rod Smith and Dr. R. Jaffee, as Fred Wahler and Steve Fox observe.

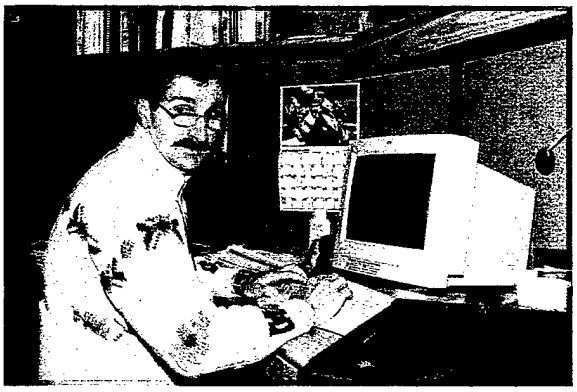
draft engineering drawing packages of all system configurations and recommended an improved ECP process to the program office. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA has begun efforts on the new Mission Planning LAN aboard aircraft carriers connecting CVIC to the Ready Rooms, accomplished contract award for all components and labor services, and coordinated an installation schedule for the aircraft carriers. Installations will actually begin in early FY98.

Point-of-Contact: Mr. Steve Fox, Code D4203SF; Tel: (215) 214-8060/ DSN 442-8060; Ms. Karen S. Levine, Code D4203KL; Tel: (215) 214-8061, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

TAMPS Support Office Staff

Paul Meisinger

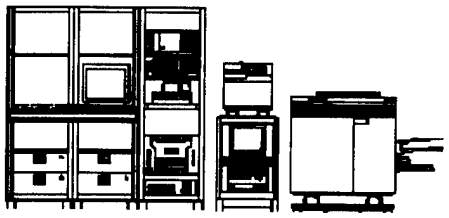
Dennis Klinger



Paul Steinbacher

Judy Jolly

IMAGE PRODUCT LIBRARY (IPL)



ROLE:

- **Installation**
- **Customer Support**
- **Hardware Engineering**
- **System Acquisition**
- **System Assembly, Configuration, Integration**
- **Logistics Support**
- **Training**
- **Configuration Management**
- **Life Cycle Support**

The Image Product Archive/Library (IPA/IPL) program is a DOD initiative sponsored by NIMA to develop the standard United States Imagery System (USIS) product archives system. This system is part of NIMA's Pilot Accelerated Architecture Acquisition Initiative (A3I) for enhanced digital imagery request, distribution, and management for all echelons within the National and DOD IMINT community. The objective of the Pilot A3I is to quickly transition enhanced capabilities to the field that will form the basis for the USI architecture of the future.

The IPL provides image products to intelligence analyst users and non-intelligence users from assets at selected imagery intelligence productions centers. The IPL provides browser capability to query image product holdings at the imagery intelligence production center and/or other IPLs to determine what image products are available to satisfy the user's needs. The users may then select an image product, indicate transfer parameters (which influence image product format and compression ratio), and request transfer of the

Vivian Di Cristofaro

Frank Greco

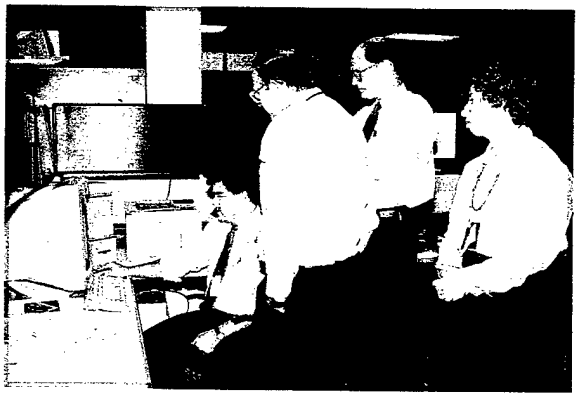
product to the user. The IPL browser workstation then receives the image product and notifies the user that the image product is available for use. The IPL also provides the capability to receive image products in either NITF format or selected non-NITF formats and enter them in the Image Product Database. The IPL Manager provides functions for data base maintenance and management. The IPL works in either a TS/SCI environment or a collateral Secret environment.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA involvement in the IPL program began in January 1997 with the receipt of our initial funding from the NIMA program office. During the year, the initial tasking planned for $1M grew to over $12M in funded efforts. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA was tasked with the efforts necessary to initiate and maintain IPL in the field.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided Site Introduction Teams to install the IPL software at sites located in both CONUS and abroad. These teams performed site surveys, delivered and installed Sybase data base management software and IPL software on site equipment, maintained licensing tracking, configured site systems to support specialized end user requirements, migrated site imagery data bases to the IPL environment, provided on-the-job training for IPL operators, delivered supporting documentation required by the site for IPL use/support, reported observed IPL and/or site problems and discrepancies, reproduced deliverable software from master electronic media, provided technical support to sites and help desk, supported site security certification, and provided shipboard installation planning and coordination.

During FY97 the Site Introduction Teams installed and supported four 1.2.2 Version IPAs, twenty-four 1.2.3 Version IPAs and six 1.0 Version IPLs on site.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided Customer Support Services for IPA/IPL systems. Our Customer Support Team established a toll free international access number for customer support, logged and tracked all requests for support, submitted formal trouble reports, as required, provided 24 hour 7 day per week



Frank Greco demonstrates the capabilities of the Image Product Library to Mr. Rod Smith and Dr. R. Jaffee, as Vivian Di Cristofaro observes.

manned support, troubleshot and resolved technical problems, monitored results to ensure that problems were accurately tracked to resolution, analyzed the nature of problems and reported trends.

During FY97, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA received and resolved 99 Trouble Calls. The average time to close a trouble call was 3.5 hours.

Our Hardware/COTS Software Engineering Team provided hardware engineering support to the IPA/IPL program during FY97. This effort included hardware definition, COTS software definition, requirements definition, installation guidance package planning, site checks, and system installation parameter definition. Along with the support of our resource management personnel, this team provided procurement support to the Sponsor for the acquisition of hardware and COTS software and licenses for the IPA/IPL program. This effort performed the tasks necessary to cost, purchase, track, and warehouse the NDI system components identified by the IPA/IPL program. Our team also performed hardware assembly, configuration, and integration including hardware assembly, system and program software installation, software/hardware integration, IPA/IPL system testing prior to field introduction, equipment receipt, inventory, storage, packaging for shipment, and shipping to the site.

During FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA procured 88 complete IPL systems comprised of 2 Large Configurations (Silicon Graphics, Sun E5000/E6000), 15 Medium Configurations (Sun E3000/4000), 38 Small Configurations (Sun Ultra 2), and 33 Workstations (PC's). We placed a total of 140 procurement actions in support of IPL program. During the year, we also assembled, configured, integrated and shipped 37 of these systems. The remainder of the procured systems will be integrated and shipped during FY98.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided Logistics Support for IPL including documentation generation and assessment (logistics planning, training, certification, testing, user documents) and sparing assessment for hardware acquisitions. We developed IPL training including developing curriculum and training materials, acquiring necessary training systems, setting-up classroom facilities, scheduling courses, training the trainers, developing training scenarios and data base elements, baselining training hardware and data bases, providing training, providing follow-up, and upgrading the training for the new IPL release. The Logistics Team also supported system configuration management and tracking by providing hardware and software status accounting of user sites and inventorying and tracking IPL hardware and software acquisitions in the CM database.

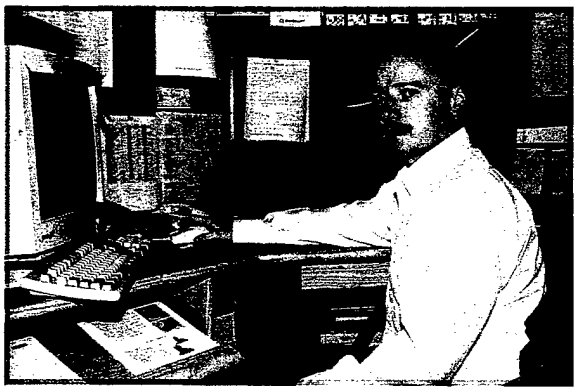
Point of Contact: Ms. Vivian DiCristofaro, Code D4203VD; Tel: (215) 214-8050; DSN 442-8050; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

NIMA Support Office Staff

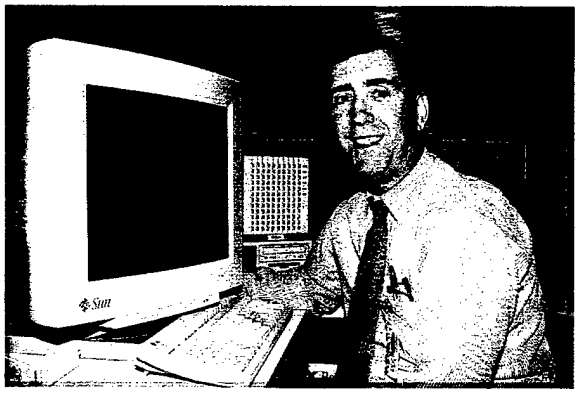
Joel Cohen

Louis Di Girolamo

Robert Flipse



Robert Mullen

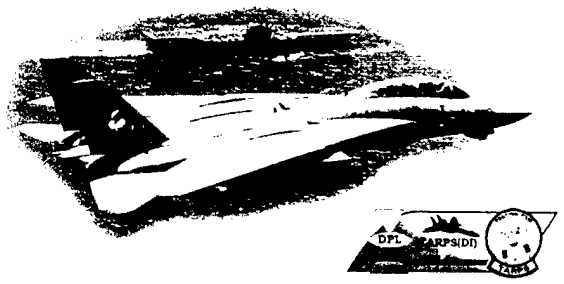


Robert Overholt

Pete DiPasquale

DIGITAL CAMERA RECEIVING SYSTEM

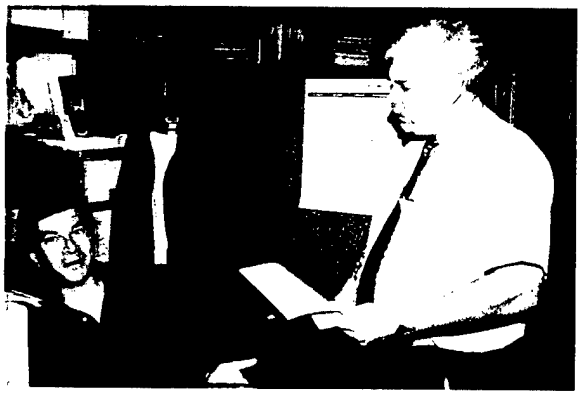
Role:



- **System Design and Integration**
- **Hardware and Software Engineering**
- **Procurement Support**
- **Prepare Documentation**
- **Conduct Training**
- **Life Cycle Support**
- **Configuration Management**

The Digital Camera Receiving System (DCRS) program provides a computerized digital photographic and imaging workstation under the COTS NDI concept. This workstation receives digital photographic files from all standard hand held digital cameras used by US Naval forces and allows for the reception of the Tactical Aircraft Reconnaissance Pod System - Digital Imagery (TARPS-DI) onboard U.S. Naval aircraft carriers. This system is an expansion of the Hand Held Digital Camera Reconnaissance System (HHDCRS) fielded for fleet evaluation in 1995 with the incorporation of unique interfaces to existing shipboard communications equipment. Near real-time digital downlink capability of imagery from the F-14 tactical aircraft is provided along with digital photographic manipulation, high resolution video digitizing, National Image Transmission Format (NITF) conversion, MicroSoft Office, Message Text Format (MTF) editor, and a local area network (LAN) interface to the Afloat Planning System (APS) GENSER Precision Targeting Workstation (PTW) and Joint Maritime Command Information System (JMCIS).

Tim Urbanski



Tony Brancato and Vincent Di Cristofaro

Early in FY96 the Program Executive Office for Tactical Aircraft (PEOTACAIR) PMA-241 tasked SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA and the Naval Air Warfare Center - Aircraft Division, Indianapolis (NAWC-AD Indy) to design and incorporate a near real-time digital imagery capability in the existing TARPS pods and associated aircraft. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided system engineering support for the aircraft sensors and full engineering and integration of the shipboard receiving capability. NAWC-AD Indy provided the engineering and integration efforts for the F-14 aircraft and TARPS pod.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA designed and built the Digital Camera Receiving System (DCRS) utilizing the common architecture and equipment of the Digital Photo Lab (DPL) Phase 2 as a basis. Functions and modifications that resulted from the HHDCRS fleet evaluation during 1995 were incorporated. By utilizing the DPL architecture as a basis for the workstation, the logistics elements for development, time required for design, and overall costs were reduced. Documentation developed for the DCRS includes the System Operator's Manual (SOM), System Technical Reference Handbook (STRH), installation guidance drawings, User Logistic Support Summary (ULSS), appendix allowance pages (AAP's), Computer Resources Life Cycle Management Plan (CRLCMP), and the System Verification and Operation Test (SOVT). Special integration and design efforts were performed to interface the DCRS into existing cryptographic and communications equipments onboard the aircraft carrier to enable the data communications to work effectively. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA hosted several meetings with the Commander Naval Air Force Atlantic (CNAL) and Commander Naval Air Force Pacific (CNAP) intelligence staffs to assure interfacing and functionality elements were implemented into the DCRS workstation. NAWC-AD Indy undertook the integration of the digital camera sensors into the TARPS pod and associated F-14 aircraft modifications.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA installed the first DCRS onboard the *USS Theodore Roosevelt* (CVN 71) in September 1996 to support VF-32 during their deployment. The DCRS system performed as designed with numerous missions flown successfully. As FY96 started, the idea of TARPS(DI) and DCRS was just forming; at the end of FY96 TARPS(DI) was a reality with the aircraft and pods in VF-32 modified with the TARPS(DI) capability and the DCRS system installed onboard the *USS Theodore Roosevelt* (CVN 71).

Based upon the immediate VF-32 mission successes, the Chief of Naval Operations N88 has identified this program as "urgent/compelling" and formalized it as a modification to operational requirement TW-30. The DCRS/TARPS(DI) capability was identified for installation onboard all US Naval aircraft carriers as quickly as possible.

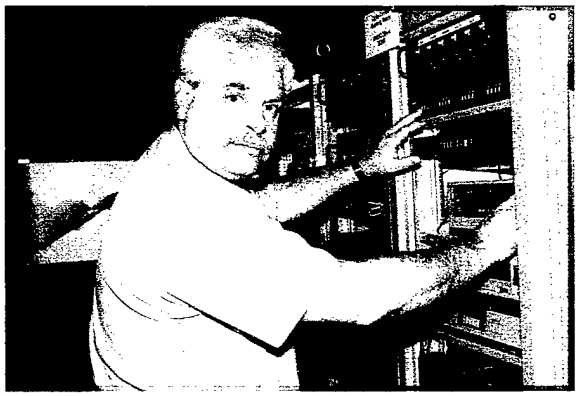
In FY97 the DCRS project moved rapidly with six installations onboard aircraft carriers and two shore site installations being completed. Performance improvements were made to the original DCRS hardware and software design. Video editing, frame digitizing and

computer generated output were added to assist in the preparation of combat assessment video tapes. Migration to IT-21 compliance and Y2K concerns were evaluated. A transportable DCRS system was developed and fielded in a USMC Highly Mobile Multi-Wheeled Vehicle (HMMWV). A briefing and demonstration supporting CNO N88 was held at the Pentagon to formally announce Initial Operational Capability (IOC) was reached for TARPS(DI) and DCRS.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provides a full range of services including design, development, customizing hardware and software, system integration, installation, training, technical support, and life cycle management for the Digital Camera Receiving System and digital cameras/sensors.

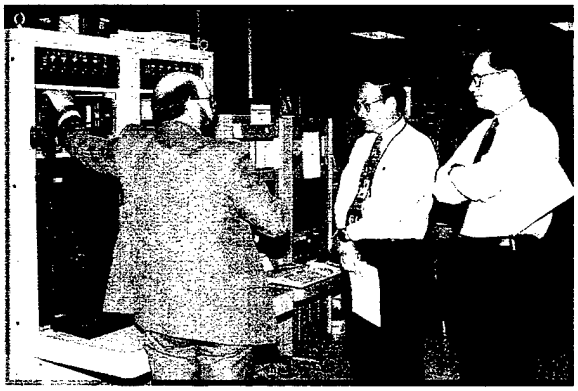
Point of Contact: Mr. Tim Urbanski, Code D4203TU, Tel: (215) 214-8023/DSN 442-8023; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Imagery Support Office Staff



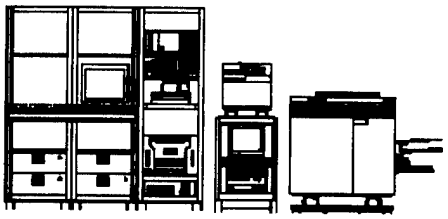
Vincent Di Cristofaro

Tony Brancato



Tim Urbanski describes shipboard and HMMWV operations of DCRS to Rod Smith and Dr. R. Jaffee, SSC SD.

DIGITAL PHOTO LAB AN/UYQ-78(V)



Role:

- **System Design and Integration**
- **Hardware and Software Engineering**
- **Procurement Support**
- **Prepare Documentation**
- **Conduct Training**
- **Life Cycle Support**
- **Configuration Management**

The Digital Photo Lab (DPL) AN/UYQ-78(V) program provides a computerized digital photo suite of equipment under the COTS NDI concept to allow a full range of digital photographic processes and interchange of digital photographic files with other shipboard and combat camera systems. This program offers the benefit of modern state-of-the-art computer technology to improve the way the U.S. Navy conducts business in the photo arena by enhancing Visual Information, Public Affairs Office, Surface Surveillance Contact, and other photographic techniques. Additional benefits of this program are reduced photo processing chemical overboard discharge to assist in meeting Environmental Protection Agency regulations and allowing photo production to be continued while in non-discharge zones, pierside, or at remote locations that have limited fresh water. The DPL program is divided into distinct phases to allow a multilevel approach to the conversion of existing wet chemical photo labs with the flexibility to provide different configurations of the DPL for various classes of U.S. Naval vessels.

Starting in FY94, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel designed the Digital Photo Lab AN/UYQ-78(V)1 (DPL Phase 1) system to be shipboard mounted with full observance of human engineering factors, mechanical shock/ vibration, electrical safety, and equipment protection while allowing full functionality and versatility. The DPL Phase 1 system was based on a MacIntosh Quadra 950 Computer platform.

In FY95, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA formalized the DPL as the production version, AN/UYQ-78(V), authorized for installation under SHIPALT 8424K (CV) and 8425K (CVN). DPL Phase 1 systems were installed onboard all active CV/CVN class aircraft carriers. Full logistic support was developed and provided. A collateral program included the design and fielding of the Hand Held Digital Camera Reconnaissance System (HHDCRS) for fleet evaluation within the F-14 A/B/D tactical aircraft. The engineering development model (EDM) of the AN/UYQ-78(V)2

(DPL Phase 2) was designed with initial integration and testing just beginning. DPL Phase 2 brings newer pentium computer technology to the basic workstation design, along with improved digital cameras and increased production capability.

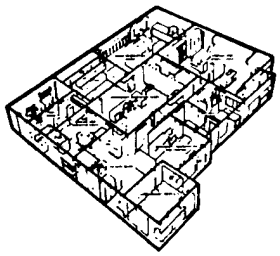
In FY96, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA performed life cycle support of the DPL Phase 1 systems installed in the fleet. DPL Phase 2 was installed onboard the *USS John F. Kennedy* (CV 67) and *USS Constellation* (CV 64). A DPL dial-up bulletin board system (BBS) was established for fleet technical and administrative support. DPL Phase 1 was installed onboard the *USS Boxer* (LHD 4) as directed by NAVSEA PMS-377 under new ship construction planning. The HHDCRS systems fielded during 1995 were deinstalled and as a result of the evaluation the HHDCRS functions were incorporated into a fixed workstation under another related project.

In FY97, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA continued as the life cycle support manager for DPL systems installed in the fleet. Twenty requests for technical support, three Combat Systems Readiness Reviews (CSRR's), and six CASREPs were responded to by telephone, email, and on site visits. The DPL Phase 1 system onboard five CV/CVN's was upgraded to the DPL Phase 1A incorporating safety and performance improvements. The basic DPL architecture was redesigned to meet information transfer/technology for the 21st century (IT-21) and year 2000 (Y2K) compliance. A newly design DPL Phase 1B (IT-21 & Y2K compliant) was installed onboard the *USS Battan* (LHD 5). SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA supported numerous meetings in liaison with NAVSEA PMS-377 to provide design support for the retrofit of DPL into the existing LHA's 1-5 and LHD's 1-3.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provides a full range of services including design, development, customizing hardware and software, system integration, installation, training, technical support, and life cycle management for the Digital Photo Lab system, digital hand-held cameras, and digital photographic production techniques.

Point of Contact: Mr. Tim Urbanski, Code D4203TU; Tel: (215) 214-8023/DSN 442-8023; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

CVN 76 CVIC CONFIGURATION DESIGN



Role:

- **Compilation and Analysis of System Data**
- **Space Utilization and Design**
- **Installation Planning Support**

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA was tasked to develop and maintain the CVIC Reconfiguration Plan for CVN 76 new construction and to provide planning support for the CVN 68 and CVN 75.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA has compiled parametric data lists for existing and future mission planning systems information processing systems and image processing systems that are located in CVIC. These lists, which contain shipboard service requirements (power, air conditioning, etc.), are used to develop plans for the near term transition of existing systems to new equipment as well as for future systems installations.

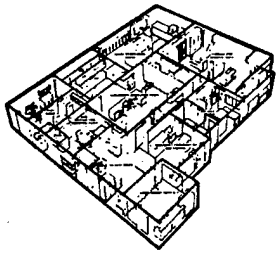
In FY97, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA continued to provide planning support to PMA-281 and the Design Center for the *USS Nimitz* (CVN 68), the *USS Harry S. Truman* (CVN 75), and the *USS Ronald Reagan* (CVN 76). With all the new systems coming on board, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA personnel worked in conjunction with COMNAVAIRLANT and the planning center to develop a more functional Carrier Intelligence Center (CVIC). SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided support at installation review meetings for CVIC Reconfiguration. We continued to support the Reconfiguration Execution Plan for the CVN 68 and CVN 76.

Point-of-Contact: Mr. Allan M. Gaidis, Code D4203AG; Tel: (215) 214-8033; DSN 442-8033; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Allan Gaidis

Wayne Lombardo

CARRIER INTELLIGENCE CENTER (CVIC) RECONFIGURATION



Role:

- **Compilation and Analysis of System Data**
- **Space Utilization and Design**
- **Installation Planning Support**

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA was tasked to provide engineering and technical support in the development of the reconfiguration of the existing CVICs to support the numerous ongoing and developing C4I systems and establish a requirement for a Master Plan to coordinate these installations through the year 2010. Tasking is from the Naval Air Systems Command, Program Executive Officer, Cruise Missile Project and Unmanned Aerial Vehicles Joint Project (PEOCU).

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA produces and updates installation guides for all the systems under its cognizance. These installation guides contain the system installation control drawings (ICDs) and parametric data required to prepare ship installation control drawings (SIDs) required to install equipment on a ship. The information from these installation guides and data collected from other systems sharing space in CVIC is used to plan for the orderly addition of new equipment and the updating of existing systems.

During FY97, we continued supporting this effort by providing technical assistance, participating in Design Reviews and other technical meetings, producing and updating equipment arrangement drawings , and serving as liaison with several Program Offices in

Allan Gaidis

Wayne Lombardo

all of the Systems Commands. CVIC reconfiguration guidance plans have been produced to date for the *USS Constellation* (CV 64), *USS Carl Vinson* (CVN 70), *USS Theodore Roosevelt* (CVN 71), *USS Abraham Lincoln* (CVN 72), *USS George Washington* (CVN 73), *USS John C. Stennis* (CVN 74), and the *USS Dwight D. Eisenhower* (CVN 69). We are currently updating the CVIC reconfiguration guidance plans for the *USS Enterprise* (CVN 65). and *USS Theodore Roosevelt* (CVN 71).

Point-of-Contact: Mr. Allan M. Gaidis, Code D4203AG; Tel: (215)-214-8033; DSN 442-8033; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Electronic Tomahawk Employment Planning Package (ETEPP)

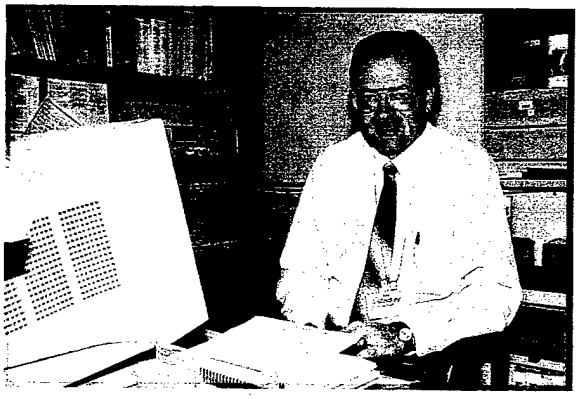
Role:

- **Hardware Engineering, Integration and Depot Support**
- **Software Reproduction and Distribution**
- **Integrated Logistics Support**
- **24 Hour by 7 Day Trouble Desk Support**

The Electronic Tomahawk Employment Planning Package (ETEPP) provides database functions and other electronic tools to store, retrieve, and manipulate critical command and control information. Each Tomahawk mission carries certain essential defining criteria about its performance characteristics. ETEPP allows strike planners to assemble the key information and to adjust other external fire control factors to maximize the efforts of the battle group with respect to Tomahawk strike planning.

PMA-281 has tasked SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA to provide facilities and technical assets to receive, integrate, test, distribute, and overall maintain the ETEPP computer systems deployed through out the fleet. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provides help desk support, hardware repair/replacement services, and acts to resolve any problems users may experience. Since 1993 the ETEPP distribution list has grown to just under 250 systems. SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA provided resolutions to over 125 requests for technical assistance in the past year. These fleet issues are routinely worked with the coordinating assistance of the type commanders: COMSUBLANT, COMSUBPAC, COMNAVSURFLANT, COMNAVSURFPAC, CINCLANTFLT, and CINCPACFLT.

In FY97 SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA procured and orchestrated the hardware upgrade of all deployed ETEPP assets by replacing the maximized BERNOULLI disk assemblies with "state-of-the-art" high capacity JAZ disk drives. This effort was designed to extend the usability of the ETEPP by several years at a minimal cost.



Steve Kubicki

The extended serviceability allows ETEPP to continue to meet fleet requirements until the long awaited Advanced TOMAHAWK Weapons Control System (ATWCS) incorporates this functionality.

Point of Contact: Mr. Stephen Kubicki Jr. (ETEPP Team Leader) Code D4203SK,
Tel: (215) 214-8000/8037 or DSN 442-8000/8037, and ETEPP TYPE DESK,
Tel: (800) 759-1263, SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

ANALYTICAL PHOTOGRAMMATIC POSITIONING SYSTEM (APPS)

Role:

- **Depot Maintenance**
- **Inter-Service Support**
- **Configuration Management**

The Analytical Photogrammatic Positioning System (APPS) is a stand-alone transportable light table and stereoscopic viewing system. The APPS utilizes prepared hard copy imagery and supporting Point Positioning Data Bases (PPDB) to provide precision mensuration data consisting of geographic position, datum conversions, distances, angular displacement, heights, and elevation from features shown on the imagery. The derived data are used for mission planning and targeting.

SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA is the APPS Depot Maintenance Interservice Agreement (DMISA) agent providing on-site and depot level service for approximately 135 units in all military branches.

In FY97, the majority of the APPS service was provided to the USAF. Trips for the USAF included 13 CONUS sites and 17 overseas sites. Trips for the USN included five ships, two shore sites, and satisfying two CASREPs.

The DMISA contract was reviewed and the terms and conditions revalidated. During this process the USAF asked for testing, validation, and necessary corrective action for APPS functionality with the Y2K transition. The APPS DMISA contract is expected to be revalidated for a few more years until the eventual transition to digital imagery and support products.

Point of Contact: Mr. Eddie Smith, Code D4203ES; Tel: (619) 553-1942/DSN 553-1942; SPAWARSYSCEN SAN DIEGO DETACHMENT PHILADELPHIA.

Eddie Smith

LIST OF ACRONYMS

AIS	Automated Information Systems
AOSD	APS Operations Support Detachment
APPS	Analytical Photogrammetric Positioning System
APS	Afloat Planning System
APS/RDS	Afloat Planning System/Rapid Deployment Suite
ASU	American Service Unit
ATWCS	Advanced Tomahawk Weapons Control System
BPA	Basic Purchasing Agreement
BF	Battle Force
BG	Battle Group
C^4I	Command, Control, Communications, Computers, and Intelligence
CASREP	Casualty Report
CBT	Computer Based Training
CINCLANTFLT	Commander In Chief, Atlantic Fleet
CINCPACFLT	Commander In Chief, Pacific Fleet
CM	Configuration Management
CMSALANT	Cruise Missile Support Activity, Atlantic
CMSAPAC	Cruise Missile Support Activity, Pacific
COMNAVAIRLANT	Commander, Naval Air Force, Atlantic
COMNAVAIRPAC	Commander, Naval Air Force, Pacific
COMUSNAVCENT	Commander, U.S. Naval Forces Central Command, Forward, Manama, Bahrain
CONUS	Continental United States
COR	Contracting Officer's Representative
COTS	Commercial Off-the-Shelf
CRLCMP	Computer Resources Life Cycle Management Plan
CSRR	Combat Systems Readiness Review
CVIC	Carrier Intelligence Center
DCID	Director of Central Intelligence Directive
DCRS	Digital Camera Receiving System
DIA	Defense Intelligence Agency
DISC	Defense Industrial Support Center
DIWS-A	Digital Imagery Work Station, Afloat
DLA	Defense Logistics Agency
DMISA	Depot Maintenance Interservice Agreement

DOD	Department of Defense
DPL	Digital Photo Lab
ECP	Engineering Change Proposal
ECU	Environmental Control Unit
EDM	Engineering Development Model
EMI	Electromagnetic Interference
ETEPP	Electronic Tomahawk Employment Planning Package
FedEx	Federal Express
FISC DET PHILA	Fleet and Industrial Supply Center Norfolk, Det Phila
GENSER	General Service
GFCP	Generic Front-end Communications Processor
GLCM	Ground Launch Cruise Missile
HCI	Human Computer Interface
HHDCRS	Hand Held Digital Camera Receiving System
HMMV	Highly Mobile Multiple Wheeled Vehicle
ICD	Installation Control Drawings
IOC	Initial Operational Capability
IPA	Image Product Archive
IPL	Image Product Library
IPR	In-Progress Review
ISEA	In-Service Engineering Agency
IMINT	Imagery Intelligence
JMCIS	Joint Maritime Command Information System
JMOCC	Joint Maritime Operational Command Center
JSIPS-N	Joint Service Imagery Processing System - Navy
LAN	Local Area Network
MDS	Mission Distribution System
MDU	Mission Data Update
MML	Master Mission Library
MOA	Memorandum of Agreement
NAVICP	Naval Inventory Control Point
NAWC	Naval Air Warfare Center
NIMA	National Imagery and Mapping Agency

NIS (DE)	National Input Segment, Dissemination Element
NIS (RE)	National Input Segment, Receive Element
NITF	National Imagery Transfer Format
NMITC	Naval and Marine Corps Intelligence Training Center
NSAWC	Naval Strike and Air Warfare Center
O&M	Operations and Maintenance
OJT	On-the-Job Training
OPLST	On Line Performance Support Tools
PEO(CU)	Program Executive Officer Cruise Missiles Project and Unmanned Aerial Vehicles Joint Project
PMR	Program Management Review
PPDB	Point Positioning Data Base
PPM	PrePlanned Missions
PTD	Provisioning Technical Documentation
PTW	Precision Targeting Workstation
RDS	Rapid Deployment Suite
ROICC	Resident Officer in Charge of Construction
SAP	Special Access Program
SCIF	Sensitive Compartmented Information Facility
SDX	Secure Data Transfer
SID	Ships Installation Drawing
SOM	System Operator's Manual
SOVT	System Operational Verification Test
STU-III	Secure Telephone Unit III
TACTRAGRULANT	Tactical Training Group, Atlantic
TACTRAGRUPAC	Tactical Training Group, Pacific
TAMPS	Tactical Aircraft Mission Planning System
TARPS	Tactical Air Reconnaissance Pod System
TEMPEST	Transient Electromagnetic Pulse Emanation Standard
TLAM	Tomahawk Land Attack Missile
TMPC	Tomahawk Mission Planning Center
TMPS	Tactical Mission Planning System
TOA	Total Obligating Authority
TSCM	Tomahawk Strike Coordination Module
ULSS	User Logistic Support Summary
USAF	United States Air Force

USCINCPAC CMD CTR	U.S. Commander-in-Chief, Pacific Command Center
USIS	U.S. Imagery System
USMC	United States Marine Corps
USN	United States Navy

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13. ABSTRACT *(Maximum 200 words)*

SSC San Diego Detachment, Philadelphia is responsible for a program of development, in-service engineering, procurement, installation support, configuration control, and integrated logistics support for shipboard and shore-based Command, Control, Communications, Computer and Information (C^4I) Systems intelligence processing systems, mission planning systems, and electronic photographic processing systems. SSC San Diego Detachment, Philadelphia provides technical support to both the Space and Naval Warfare and Naval Air Systems Commands and the Office of Naval Intelligence. Headed by a Senior Civilian, SSC San Diego Detachment, Philadelphia is comprised of 36 Civilians including Engineers, Computer Specialists, Intelligence Operations Specialists, Technicians, Logisticians, and Management Support personnel, practicing Total Quality Management and ensuring the Quality Process is routenely used. Engineering and Technical Support is provided by 145 contractor personnel. This report cites awards and recognition received by SSC San Diego Detachment, Philadelphia, during Fiscal Year 1997.

14. SUBJECT TERMS

Mission Area: Command, Control, Communications, Computer and Information (C^4I) management support
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